

### REMARKS

Reconsideration of this application is respectfully requested. The allowance of claims 24 and 26 is appreciated. This response after final rejection should be entered because it does not amend the claims, and points out the flaws in the outstanding rejections.

Acknowledgement is requested of the references submitted with the preliminary amendment on December 21, 2001, and listed on the Notice of References Cited from the parent application. Attached are copies of the two pages of Notice of References Cited that were previously submitted.

The rejection of claims 1, 3-6, 10, 11, 22, 23, 25 and 27-31 as being anticipated by Horie et al. (JP 8-292423)(Horie JP423) is traversed. Horie does not disclose a liquid crystal display (LCD) having liquid crystal model molecules that are "aligned in a direction substantially vertical to the substrates when no voltage is being applied."

The section of Horie Patent No. 6,061,117 (Horie '117) at col. 3, ln. 56 relied on in the Action does not teach vertical alignment of the liquid crystal molecules when no voltage is applied. Rather, Horie '117 at col. 3, ln. 56 states that "at least one of the concave portion and the convex portion are made of a film having a vertical alignment property or a horizontal alignment property." This statement in the summary of the invention of Horie '117 does not mean that the liquid crystal molecules are vertically aligned when no voltage is applied. The embodiments described in the detailed description section of Horie '117 all having liquid crystal molecules that are axial-

symmetric when no voltage is applied and vertical when voltage is applied. See, Horie '117, col. 10, ln. 66 to col. 11, ln. 2.

The comment in Horie '117 at col. 3, ln. 56 (cited in the Action) relates to a "vertical alignment property" of an island feature for each pixel region in the LCD that provides stable control of the axis of the axial-symmetric orientation. In particular, Horie '117, col. 15-18 (see also col. 25, lns. 13-18) states that:

According to the examination by the inventors, when a voltage and/or a magnetic field are applied to the mixture containing at least the liquid crystal and the curable resin (or polymer) at the time of phase separation of the liquid crystal from the curable resin, it is possible to fix the axis for the axial-symmetric orientation of the liquid crystal molecules in the liquid crystal region in the vertical direction to the substrates for all the pixels. This phenomenon is preferable because, **by using the island having the vertical alignment property such as the convex portion made of a material having the vertical alignment property for aligning the liquid crystal molecules, it is ensured that the axis for the axial-symmetric orientation can be controlled more stably.** [Horie '117, col. 17, lns. 15-26 (emphasis supplied)].

The reference to "vertical alignment property" in Horie '117 at column 3 is not a teaching of a liquid crystal cell where the entire cell is vertically oriented in the absence of applied voltage, and axially symmetrical in the presence of applied voltage. Because Horie does not teach vertical aligned liquid crystal molecules when no voltage is applied to the substrates, Horie does not teach the same invention that is recited in the claims of this application.

Claim 1 makes clear that the liquid crystal layer is thickest about a pixel region to assist in providing axial symmetrical orientation for the vertically aligned liquid crystal

molecules when no voltage is applied. This feature is also not taught by Horie '117.

Accordingly, there is no anticipation because Horie does not disclose the same device as is being claimed here.

The rejection for obviousness of claims 7 to 9 based on Horie in view of Miyashita (U.S. Patent 5,184,236) is traversed. Horie and Miyashita do not disclose or suggest vertically aligned liquid crystal molecules when no voltage is applied. Further, Miyashita does not teach the claimed vertical alignment of the liquid crystal molecules.

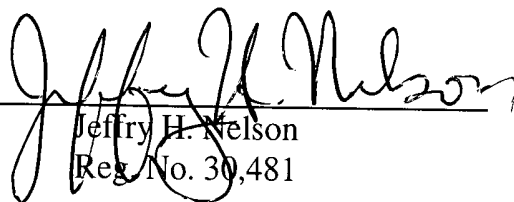
Accordingly, the rejection of claims 6 and 7 should be withdrawn.

All claims are in good condition for allowance. If any small matter remains outstanding, the Examiner is requested to telephone applicants' attorney. Prompt reconsideration and allowance of this application is requested.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_

  
Jeffrey H. Nelson  
Reg. No. 30,481

JHN:glf  
1100 North Glebe Road, 8th Floor  
Arlington, VA 22201-4714  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100